

**DEQ Wind Energy Regulatory Advisory Panel (Wind RAP)**

Work Session #3 - "Other" Natural Resources

Final Meeting Minutes

December 17, 2009

**Location:** **Innovative Technical Center**  
Dominion Blvd, Glen Allen, VA 23060

**Start:** 9:38 am

**End:** 1:27 pm

**RAP Lead/Facilitator:** Carol Wampler, DEQ

**Recorder:** Debra Miller, DEQ

**RAP Members Present:**

John Daniel, Troutman Sanders

Stephen Versen, VDACS

Ronald Jenkins, DOF

Ray Fernald, DGIF

John Davy, DCR (alternate)

Dan Holmes, PEC

**Public Attendees:**

Robert Hare, Dominion

Don Giecek, Invenergy (alternate)

Rick Reynolds, DGIF (alternate)

**Agenda Item: Welcome & Introductions**

**Discussion Leader:** Carol Wampler

**Discussion:** The work session attendees were welcomed. Work session #3 is dedicated to "other natural resources" and the criteria that will be necessary in the regulation regarding these resources. The group was provided an explanation of the evolution of the draft document for discussion. This current draft discussion document includes newer language from DGIF, DCR, and VDACS. The topics for today are: DCR Natural Heritage Resources, T&E Plants, forest, farmland, scenic resources, and national ambient air quality standards. Attachment A includes the sections of the draft document reviewed today.

**Agenda Item: Section 6 - Site Plan and Area Map Requirements**

**Discussion Leaders:** Carol Wampler, DEQ

**Discussion:** The language of Section 6.B of the discussion document was reviewed and discussed as it related to the other natural resources which are to be discussed today. This subsection requires submittal of a context map showing various land use resources.

Comments noted during the discussion regarding forest and farmland issues were:

- Integrity of forests is a concern. There is global interest in acres of whole forests which have not been fragmented. A context map will help to identify these areas and the values.
- The context map will need to identify forest and open areas. Perhaps a layer can be added to this map to identify the land cover which will provide

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information on the forest and open space areas. It was suggested by one attendee that "land cover" be included in the listing of resources to be identified on the context map in Section 6.B, and by listing "land cover" then all uses, including farmland, forest, open areas, and others, should be covered.

- Farmland issues related to development are important in order to make an accounting of acres converted from farmland use, as farmland preservation is an area of concern for VDACS. VDACS has guidelines for developing purchase of development rights programs at local levels and working with VDACS' Office of Farmland Preservation in order to preserve farmland, so it is important to VDACS that developers consider voluntarily sharing information on the acres converted from farmland and open spaces.
- Industry representatives noted that this could be considered broadening the scope of regulatory requirements by asking wind developer to take actions that are not required of developers of other types of projects. This may be an issue for guidance.
- There was considerable discussion regarding the "slippery slope" issue of placing suggested procedures within guidance when there is not a statutory or regulatory basis for requiring these procedures.
- The issue of farmland and how to account for any conversion is an area of interest for VDACS. These are goals to consider for VDACS. It was clarified that the acres farmland converted provides useful information and wind development has many potential benefits to farmers, so it should not be viewed as a road block. Farmers operate on low margins and wind development on their farmland may have some temporary issues, but once the turbines are in place, most of the land can still be farmed and farmers usually lease the land and account for any lost crop production in the lease amounts, so the amount converted is much less compared to other types of development. The farmer ends up with additional steady income and a new road too. By just adding land cover to the list of resources to identify in 6.B, that should provide VDACS with the information needed.

### **Agenda Item: Guidance Issue**

**Discussion Leader:** Carol Wampler

**Discussion:** Industry and developer representatives noted that this was concern regarding the use of guidance for non-regulatory based provisions. They noted that guidance is the agency telling someone how to do something the "right way" and guidance should not go beyond what is necessary to get the job done. For instance, collecting data for data's sake and keeping a state agency's database up to date is not a requirement that should be placed on the wind developers.

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The discussions of December 14, 2009 (Work Session # 1 - Wildlife), were recapped for the work group. During the recap, it was noted that it is important to remember that not every detail can or is appropriate to include in the guidance. Sister agencies do want some assurances that guidance will provide the rules of the game for the developers and DEQ. However, this is a "slippery slope" as was previously noted, and one will have to deal with the problem of when non-regulatory requirements or suggestions are included in guidance. Developer representative commented that if the requirement is important and necessary, then it should not be placed in guidance but made a regulatory requirement. Additionally, there are also issues with asking for courtesy or voluntary information to be submitted per the guidance. Guidance carries the tone of what is required to meet the PBR regulatory requirements; therefore, if the "courtesy" information is not provided, developers are concerned that this omission might be considered a failure to meet the regulatory requirements.

For instance, DOF would like to see the guidance include submittal of the amount of forested land converted. It was commented that there is no direct statute for use of forest on private land. Others stated that it was up to DEQ to decide these issues as a matter of agency discretion when developing the guidance. The work group was asked their preference on including forest conversion in the guidance as a purely voluntary measure. The vote was three ayes for inclusion and one nay to that suggestion.

The work group was reminded that the sanctity of the guidance needs to be kept in mind. It was noted that there is no possible way to cover every contingency for every issue. The group had mixed recommendation on a voluntary request in the guidance and all noted it was ultimately up to DEQ to decide.

### **Agenda Item: Natural Heritage Resources**

**Discussion Leaders:** Carol Wampler, DEQ

**Discussion:** The discussion document was reviewed and DCR's language was highlighted for the group's review. It was noted that non-wildlife and non-historic resources are only analyzed, since the statute does not authorize DEQ to require mitigation. The group reviewed the definitions for "ecological core" and "natural heritage resource." It was pointed out that habitat has been removed from Section 3.A, since it is not wildlife. The requirements for analysis of "other" natural resources will be stipulated in Section 3.C. The work group then reviewed the language of that section 3.C.

Comments noted:

- There should be some clarification of what "desktop" is and what "field analysis" is. For instance, is compliance demonstrated by doing desktop and

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field or only desktop (if no field analysis is required based on desktop)? DCR responded that the desktop provides the overview, while the field analysis provides the details needed. Carol reiterated that the statute does note that "where relevant, an analysis of the beneficial and adverse impacts of the proposed project on natural resources" is to be done. The desktop study shall be performed to see if any resources exist on the site. If the resource exists in the prescribed area ("disturbance zone" or "site" as appropriate), then it is "relevant" and the field analysis is performed.

- DOF noted that this proposed language for natural heritage resources in Section 3.C would work for the "other" resources as well.

The work group reviewed the information listed in Section 3.C.2. The facilitator asked if that information was reasonably available. DCR noted that if DCR has done the mapping, then the list of items in Section 3.C.2 would be available from their information. If the mapping has not been done by DCR, then DCR believes that a field study within the disturbance zone should be performed in order to obtain that information.

The work group then discussed the impacts to the non-disturbed area from the disturbance zone, such as sedimentation run-off. During these discussions, it was noted that there is a general trend to include 100 feet from the disturbance zone as a buffer to account for these impacts to the close-in areas surrounding the actual disturbance zone. The group discussed whether the disturbance zone definition should include the "buffer" area and all agreed that it should.

*Consensus: The work group agreed that the definition of "disturbance zone" shall be expanded to include all of the area within 100 feet beyond the disturbed area.*

The guidance language for natural heritage resources was reviewed. It was noted that there is no existing statutory authority for avoidance, minimization, or mitigation of these resources. During this review, DGIF commented that this PBR could not allow taking of any T&E species since that is under DGIF's authority. It was pointed out that there was nothing that prohibited mentioning this issue. DGIF requested that the OAG provide an opinion on the T&E issue. The work group was reminded that while the analysis section addresses T&E, the PBR is not and will not be a shield from other authorities for T&E species (such as incidental take permits).

### **Agenda Item: NAAQS Impacts (§ 10.1-1197.6.B.6 )**

**Discussion Leader:** Carol Wampler

**Discussion:** In §10.1-1197.6.B.6 of the Code of Virginia, it states that one of the conditions for PBR issuance is an analysis of potential environmental impacts of the small renewable energy project's operations on attainment of national

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ambient air quality standards (NAAQS). Therefore, for this requirement, the regulation will restate the language of the statute. DEQ's Air Division will provide information on how to calculate offsets, once available from EPA, and that information will be provided in the guidance. It will be the wind developer's discretion of the level of detail to provide regarding benefits to NAAQS. The work group had no disagreement with this approach.

### **Agenda Item: Scenic Resources**

**Discussion Leader:** Carol Wampler

**Discussion:** DCR provided language for scenic areas analysis in Section 3.C.4. This is an impact analysis only, as there is no statutory mitigation authority for scenic resources. There was some concern of what will be done if the scenic resource analysis indicates considerable impacts, especially to scenic rivers. Scenic resources, including scenic rivers, are natural resources that are considered by the statute; however, the statute limits DEQ's authority as mitigation can only be required for impacts to wildlife and historic resources. Other natural resources are part of the analysis but there is no authority to require mitigation. Therefore, this regulation cannot include requirements for mitigation of impacts to scenic resources. The requirement in Section 3.C.4, can highlight the scenic resource issues, including scenic rivers, so that the public and local government may consider them.

As part of the analysis for scenic resources, DCR indicated that visibility, number of people affected, how often seen, and who sees it should be included.

Comments noted were:

- By statute, if the developer does the analysis and provides the required information, then he meets the regulatory requirements.
- Some noted a concern on relying on local governments to provide protections for these resources, even though they do have the power to stop a project.

It was noted that for scenic resources tools such as GIS and modeling can provide assistance to visualize the potential impacts. A possible reference for those doing scenic resources analysis is the Virginia Outdoors Plan.

*Consensus: The work group agreed to include reference to the Virginia Outdoors Plan, a DCR document, which will assist in identifying scenic resources.*

Action Item: Don Giecek will work with DCR to develop guidance regarding the scenic resource analysis (guidance will parallel the requirement for historic resource analysis).

The meeting was then adjourned.

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SECTIONS DISCUSSED DURING WORK SESSION #3  
DCR Edits from in BLUE Font and GREEN Font (Added 12/11/09)  
Sections updated during Work Session #3 in GREEN highlight

\*\*\*\*\* **WORKING DRAFT – NOT FOR DISTRIBUTION** \*\*\*\*\*

**Section 1. Authority, applicability and definitions**

A. This regulation is issued under authority of Article 5 (§ 10.1-1197.5 et seq.) of Chapter 11.1 of Title 10.1 of the Code of Virginia. The regulation contains the application filing requirements for all wind-powered electric generation facilities consisting of wind turbines and associated facilities with a single interconnection to the electrical grid that are designed for, or capable of, operation at a rated capacity of equal to or greater than 500 kilowatts and equal to or less than 100 megawatts.

B. As used in this chapter:

“Department” means the Department of Environmental Quality

“Disturbance zone” means the area within the project boundary where vegetation management or earth moving activities will occur.

“Ecological Core” means an area of unfragmented ~~patch of~~ forest, marsh, dune, or beach of ecological importance that is at least 100 acres in size and identified in DCR’s natural landscape assessment website ([www.dcr.virginia.gov/natural\\_heritage/vclnavnla.shtml](http://www.dcr.virginia.gov/natural_heritage/vclnavnla.shtml)).

“GDPIPD Index” means the Gross Domestic Product Implicit Price Deflator Index, which shall be based on the index in June of each calendar year.

“Invasive Plant Species” means a non-native plant species that cause, or are likely to cause, economic or ecological harm or harm to human health (Presidential Executive Order 13112), and contained on the Department of Conservation and Recreation’s invasive plant species list ([http://www.dcr.virginia.gov/natural\\_heritage/documents/invlist.pdf](http://www.dcr.virginia.gov/natural_heritage/documents/invlist.pdf)).

“Historic properties” means properties which are listed in or eligible for listing in the National Register of Historic Places

“Natural Heritage Resource” means as defined by the *Code of Virginia* §10.1-209, the habitat of rare, threatened, or endangered plant and animal species, rare or state significant natural communities or geologic sites, and similar features of scientific interest benefiting the welfare of the citizens of the Commonwealth.

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"Operator" means the person responsible for the overall operation and site management of a wind energy facility.

"Owner" means the person who owns all or a portion of a small renewable energy project facility or part of a wind energy facility.

"Permit by rule" means provisions of the regulations stating that a wind energy facility or activity is deemed to have a permit if it meets the requirements of the provision.

"Pre-Construction" means any time prior to commencing land clearing operations necessary to the installation of energy generating structures at the small renewable energy facility.

"Post-Construction" means any time after commencing operation of the last turbine on the project or phase of that project.

"Project boundaries" means area encompassed by a wind energy facility that is under common ownership or operating control. Electrical infrastructure and other appurtenant structures up to the interconnection point shall be considered to be within the project boundaries. (*General subcommittee definition*)

"Project Boundary" means the area of land under ownership, easement, lease under control via any other legal means) by the Applicant that will also be directly impacted by construction and operation of the proposed facility, at ground level or in the air space above such ground level. (*Living Resources subcommittee definition*)

"Rated capacity" means the maximum capacity that a wind energy facility can deliver at the interconnection point.

"Wildlife" means

"Wildlife Species" means any.

"Wind energy facility" means a wind- powered electric generation facility, whose main purpose is to supply electricity, consisting of one or more wind turbines and other accessory structures and buildings, including substations, meteorological towers, electrical infrastructure, transmission lines and other appurtenant structures and facilities within the project boundaries. Two or more wind energy facilities, otherwise spatially separated but under common ownership or operation control that are connected to the electrical grid under a single interconnection agreement shall be considered a single wind energy facility.

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**Section 3. Analysis of the beneficial and adverse impacts of the proposed project on natural resources.**

A. To fulfill the requirements of §10.1-1197.6 B.7 of the Code of Virginia, the applicant will conduct pre-construction wildlife analyses within the project boundary. The analyses shall include the following:

1. Mapping: The applicant shall attach detailed maps of the proposed Project Boundary providing the results of the Wildlife Analysis for: ~~1) habitat, and~~ 1) Wildlife.

~~a. Habitat Mapping. The applicant will provide a map resulting from the desktop and field surveys within in the Project Boundary. The applicant shall have used the DCR's "The Natural Communities of Virginia, Classification of Ecological Community Groups, 2<sup>nd</sup> Approximation" (Fleming, Coulling, Patterson and Taverna, 2006) as the vegetation standard to describe and map the ecological community groups on the project area. Additional habitat features including Wildlife habitat (e.g., raptor nests, caves, mines), physiographic features (e.g., rock outcrops, cliffs, wetlands), unfragmented natural ecosystems that are Ecological Cores will be mapped. If any Invasive Plant Species are identified within the Project Boundary during the normal course of habitat mapping surveys, they will be flagged in the field and mapped. All Invasive Plant Species identified during the mapping exercise shall be managed given currently acceptable standards during construction activities.~~

C. To fulfill the requirements of §10.1-1197.6 B.7 of the Code of Virginia, the applicant shall also conduct an analysis of the impact of the proposed project on other resources. The analysis shall include:

1. An analysis of the impact of the project on Natural Heritage Resources which shall ~~include a map resulting from the desktop and field surveys. within the Project Boundary~~

~~The applicant will identify natural heritage resources by:~~

- (i) Submitting a map with the results from:

~~a. a desktop survey performed on the all areas within a 2 mile radius around the project boundary; and~~

~~b. a field survey performed within the project boundary/disturbance zone; and~~

- (ii) A description of the beneficial and adverse impact based on the desktop and field surveys.

2. The mapping required in subdivision 1. of this subsection will include: the Ecological Community Groups (DCR's "The Natural Communities of Virginia, Classification of

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Ecological Community Groups); Natural Heritage Resources; and State Threatened and Endangered Species to include species/community identification, location, age, size, spatial distribution, evidence of reproduction; Ecological Cores; caves; mines; rock outcrops; cliffs; wetlands; and Invasive Plant Species.

***Suggested Guidance Document language:** Ecological Community Group definitions and descriptions along with methods can be found on the Department of Conservation and Recreation's website at: [http://www.dcr.virginia.gov/natural\\_heritage/nchome.shtml](http://www.dcr.virginia.gov/natural_heritage/nchome.shtml) Natural Heritage Resource and State Threatened and Endangered Species information can be found by contacting the Department of Conservation and Recreation, Natural Heritage Program at 804-371-2708, or directly on-line at Natural Heritage Data Explorer via a data subscription agreement:*

*<http://www.dcr.virginia.gov/forms/DCR199-005.pdf>*

*Ecological Cores can be found on-line via a publicly accessible website at:*

*[http://www.dcr.virginia.gov/natural\\_heritage/vclnavnla.shtml](http://www.dcr.virginia.gov/natural_heritage/vclnavnla.shtml)*

**Suggested Guidance Document Language:** For Natural Heritage Resources the Applicant is encouraged to take all reasonable measures to avoid adverse impacts, or shall demonstrate via a mitigation plan why adverse impacts can not practically be avoided, and why the proposed actions to provide maximum conservation actions for natural heritage resources are reasonable and practical.

2. *An analysis of the impact of the project on the Commonwealth's forestland resources;* (Note: DOF to recommend language on methodology)

3. *An analysis of the impact of the project on the Commonwealth's farmland resources* (Note: VDACS to recommend language on methodology); *and*

4. For the area within the 5-mile radial survey around the project, an analysis of the impact of the project on existing federal or state designated scenic resources **including such as** National Parks, National Forest Designated Scenic Areas, State Parks, State Natural Area Preserves, National Scenic Trails, National or State designated scenic roads, National or State designated Scenic Rivers, and those resources identified as potential candidates for such designation **in the current Virginia Outdoors Plan** shall be conducted and shall show the potential impact of the proposed project on the view shed from such identified resources where applicable.

Methodology: Federal and state designated and potential scenic resources to be included in the five mile survey area can be found on the regional maps contained in the current version of the Virginia Outdoors Plan available on line at [http://www.dcr.virginia.gov/recreational\\_planning/vop.shtml](http://www.dcr.virginia.gov/recreational_planning/vop.shtml) . In addition, the Virginia Department of Transportation maintains a "Map of Scenic Roads in Virginia" that shows the location of all designated scenic byways. Further information on the location of

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important protected land resources can be obtained from the Department of Conservation and Recreation's Conservation Lands Data Base which can be accessed on line at [http://www.dcr.virginia.gov/natural\\_heritage/clinfo.shtml](http://www.dcr.virginia.gov/natural_heritage/clinfo.shtml)

Once key scenic resources, whose view shed would be potentially impacted by the proposed wind power project are identified, an appropriate viewshed impact analysis tool should be applied. Where impacts are identified, the applicant is encouraged to take action to mitigate or reduce such impacts or explain why such impacts could not be avoided.

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### **Section 6. Site plan and area map requirements.**

A. The applicant shall submit a site plan that includes maps showing the physical features and land cover of the area within the project boundaries, both before and after construction of the proposed project. The site plan shall be submitted at X:1 scale and shall include 1) the project boundaries, 2) the location, height, and dimensions of all existing and proposed wind turbines, other structures, fencing and other infrastructure, 3) the location, grades, and dimensions of all temporary and permanent on-site and access roads from the nearest county or state maintained road, 4) existing topography, and 5) water bodies, waterways, wetlands, and drainage channels.

B. The applicant shall submit a context map including the area encompassed by a 5 mile radius around the project boundaries. The context map shall show state and federal resource lands and other protected areas, state roads, waterways, locality boundaries, land cover, and transmission and substation infrastructure.